

Sandhill Deer Season Summary – 2003
Sandhill Outdoor Skills Center
WI Department of Natural Resources
Box 156
Babcock, WI 54413

Deer Hunt Structure

Three deer seasons were held on Sandhill Wildlife Area in November 2003. The *Learn to Hunt Deer* hunt was held on Saturday and Sunday, November 1 and 2. Two special *Antlerless Hunts*, open to the general public by advanced application, were held on Saturday and Sunday, November 8/9 and 15/16 (table 1).

Table 1. Deer season structure, Sandhill 2003.

| Season | Beginner Hunt | General Hunt |
|-----------------------|--|---|
| Dates: | Nov 1/2 | Nov 6/9 & 15/16 |
| Purpose: | Teach deer hunting to beginners; conservative buck harvest | Reduce deer herd |
| Bag: | 50% = 1 deer of either sex 50% = 2 antlerless deer | 2 antlerless deer; hunters returning 2 nd weekend allowed to use tags from 1 st weekend |
| Tag: | Bonus | Bonus |
| Group Hunting? | No | Yes |
| Drives? | No | Yes |

Hunter Effort / Success

Table 2 summarizes deer hunter and deer harvest data for 2003. A total of 178 permits were issued to beginner hunters, and 163 hunters entered the facility. Beginner hunters harvested 40 legal deer. Success rate on Day 1 was 19 percent; on day 2 it was 7 percent for a season success rate of 26 percent.

Table 2. Hunter effort, success and harvest at Sandhill, 2003.

| | Beginner Hunt | | Antlerless Hunts | | | |
|--|----------------------|--------------|-------------------------|--------------|--------------|--------------|
| | Day 1 | Day 2 | Day 1 | Day 2 | Day 1 | Day 2 |
| No. of Hunters | 163 | 116 | 180 | 130 | 161 | 125 |
| Hunters / mi² | 11.6 | 8.3 | 12.7 | 9.3 | 11.5 | 8.9 |
| No. Deer Harvested | 32 | 8 | 81 | 39 | 34 | 12 |
| Deer Harvested / mi² | 2.3 | 0.6 | 5.8 | 2.8 | 2.4 | 0.9 |

A total of 341 hunters entered the facility and harvested 166 legal deer in 2 separate weekend antlerless hunts. Day 1 success rate was 45/19 percent; day 2 success rate was 30/30 percent for days 1 & days 2, for each weekend respectively. Antlerless hunters had a season success rate of 49 percent.

Hunter density on Day 1 was approximately 1 hunter per 55 acres for the Beginner Hunt, and 49 and 56 acres for weekends 1 and 2 of the Antlerless Hunts. Collectively, hunters removed 206 legal deer, or 14.7 deer per square mile of deer range inside Sandhill during the 2003 seasons. In addition, 4 unretrieved losses were found following the Beginner Hunt, and 5 illegal kills were turned in during the 3 seasons. None of these are included in the above estimates.

Hunters are asked a series of questions related to the number of deer they saw during their hunt. This information is used to augment information on deer densities, and is useful in providing insights on hunting pressure (table 3).

Table 3. Deer sightings and density estimates based on hunter questionnaires at Sandhill, 2003.

| | Beginner Hunt | | Antlerless Hunts | |
|--|----------------------|--------------|-------------------------|--------------|
| | Day 1 | Day 2 | Day 1 | Day 1 |
| No deer seen/ 100 hours | 65 | 31 | 85 | 47.5 |
| Percent antlered bucks seen | 30 | 38 | 40 | 42 |
| Estimated deer density/mi² | 34 | | 40 | 27 |

Deer Physical Characteristics / Population Demographics

Thirty-three bucks, aged 1 ½ years or older, were legally harvested in the 3 deer hunts on Sandhill in 2003 compared to a 13-year average of 39.3 adult bucks (figure 1). Ten of these (30 percent) were yearling bucks. Two yearlings, two-2-year-olds and one 3-year old bucks were recovered as illegal kills, for a total removal of 39 bucks.

Age distribution of all harvested bucks and does are shown in figure 2.

Age selection differed between bucks and does. Most adult bucks (n=16/24) harvested in the Beginner Hunt were prime-aged bucks (> 2 years old). Amongst does, hunters selected larger bodied animals in both the Beginner and Antlerless hunts.

Dressed weights and antler beam diameters of bucks (Tables 4 and 5) are used to measure body condition. Figure 3 shows a correlation between

Table 4. Dressed weights (pounds) of antlered bucks, by age, harvested on Sandhill, 1995-2002.

| Age | 1 ½ | 2 ½ | 3 ½ | 4 ½ | 5 ½ |
|-------------|------------|------------|------------|------------|------------|
| 1995 | 98.6 | 120.4 | 142.5 | 141.0 | 176.8 |
| 1996 | 92.3 | 121.8 | 133.0 | 154.3 | -- |
| 1997 | 97.4 | 124.8 | 141.4 | 154.0 | 173.5 |
| 1998 | 100.1 | 113.9 | 137.8 | 150.0 | 178.0 |

| | | | | | |
|-------------|------|-------|-------|-------|-------|
| 1999 | 94.9 | 114.2 | 137.7 | 158.4 | -- |
| 2000 | 89.0 | 117.9 | 136.0 | 161.7 | 174.0 |
| 2001 | 88.5 | 115 | 135 | -- | -- |
| 2002 | 79.5 | 115 | 140 | 151 | 176 |
| 2003 | 81.7 | 98 | 132 | 168 | 170 |

Table 5. Antler beam diameters (in mm) of bucks, by age, on Sandhill, 1995-2002.

| Age | 1 ½ | 2 ½ | 3 ½ | 4 ½ | 5 ½ |
|-------------|------------|------------|------------|------------|------------|
| 1995 | 17.3 | 20.9 | 27.7 | 41.0 | 36.8 |
| 1996 | 15.8 | 23.6 | 27.0 | 33.6 | -- |
| 1997 | 13.5 | 18.6 | 19.4 | 26.9 | 33.5 |
| 1998 | 15.9 | 22.0 | 26.1 | 41.0 | 35 |
| 1999 | 12.7 | 19.6 | 22.1 | 29.7 | -- |
| 2000 | 13.6 | 22.5 | 34 | 33.3 | 35 |
| 2001 | 10.4 | 20 | 23.5 | -- | -- |
| 2002 | 10.0 | 20.0 | 24.0 | 31.0 | 30.0 |
| 2003 | 12.6 | 24 | 26.6 | 32 | 34 |

deer densities and weights of yearling bucks.

Hunters legally harvested 19 deer inside the 1.1 square mile radio telemetry study area in the southeast corner of Sandhill. This was a removal of 17 deer per square mile, compared to an overall removal of 17.6 deer per square mile of deer habitat in Sandhill. Included in this harvest were 1 radioed and 1 ear-tagged deer. An average of 562 days (1.5 years) elapsed from capture to harvest among 11 recovered deer from 28 that were ear-tagged on Sandhill since 1997.

Telemetry Work

University of Wisconsin – Stevens Point and Madison students manned 2 antenna towers 12 hours daily during the 2003 deer seasons. They obtained 185 out of a possible 288 fixes on 4 radio-collared deer for a success rate of 64 percent in obtaining fixes.

Daytime activity varied between deer, and between the deer seasons (Table 6). Bucks tended to be less active than the does during the first weekend, but this behavior changed dramatically by the 2nd weekend when bucks reached full rut (and were also no longer a legal target). By November 8, no pronounced temporal differences in activity were discernible. The does initially exhibited a typically autumn pattern of pronounced crepuscular activity with a flurry of activity around mid-day associated with foraging. By the Antlerless Hunts, the mid-day activity was barely noted.

Table 6. Percent of time radioed deer were considered “active” between 0530h and 1730h during the Youth hunt, and Antlerless hunts, 2003.

| Time | 0530-0730 | 0730-0930 | 0930-1130 | 1130-1330 | 1330-1530 | 1530-1730 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Does | | | | | | |
| Youth Hunt | 83 | 50 | 10 | 58 | 33 | 37 |
| Antlerless | 33 | 62 | 23 | 36 | 33 | 57 |
| Bucks | | | | | | |
| Youth Hunt | 55 | 52 | 25 | 40 | 40 | 33 |
| Antlerless | 50 | 60 | 48 | 48 | 50 | 46 |

Figure 1. Adult buck (> 12 months) harvest trends, Sandhill, 1991-2003.

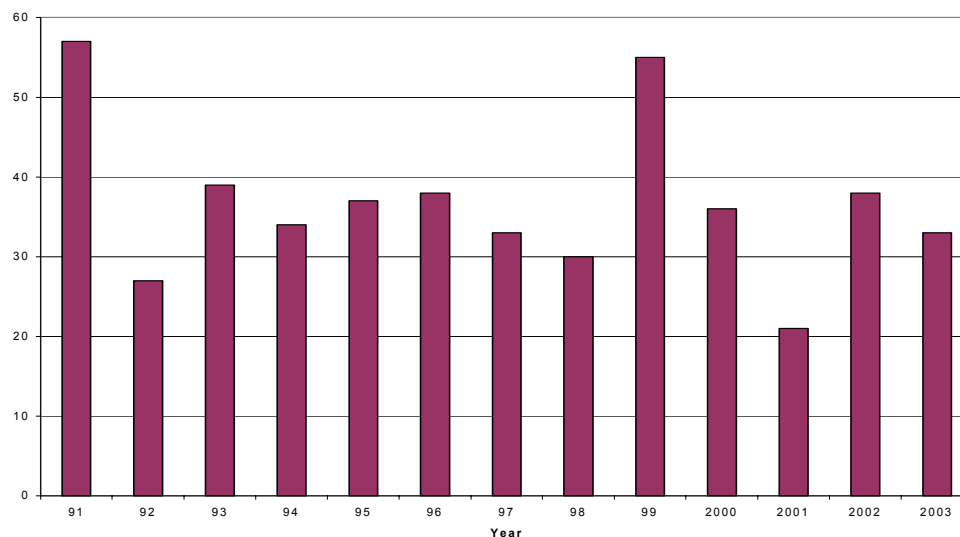


Figure 2. Age distribution of bucks and does harvested on Sandhill, 2003.

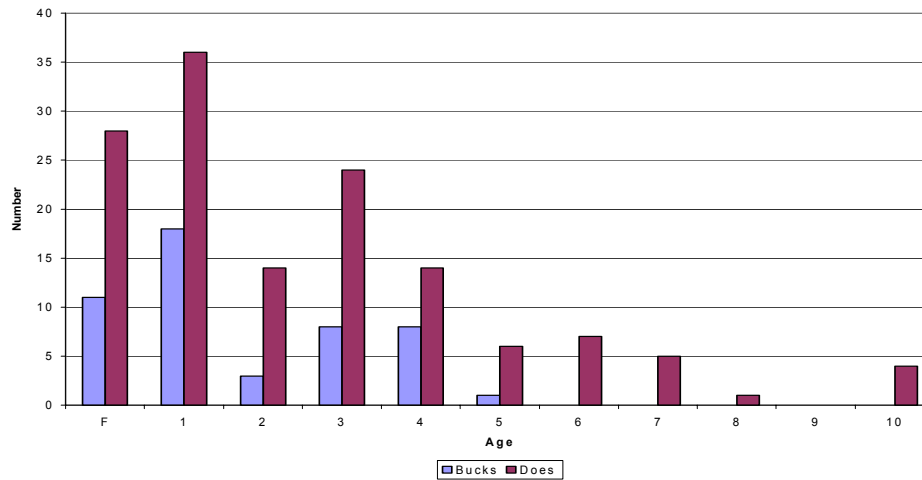


Figure 3. Yearling buck weight vs. deer density, 1995-2003.

